

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 1-9, 11-20, 23, 24, and 25 are pending in this application. Claim 25 is added by the present response. Claims 1, 4, 8, 11-12, 15, 19, and 23-24 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. patent 6,859,832 to Gecht et al. (herein “Gecht”) in view of U.S. patent 5,768,483 to Maniwa et al. (herein “Maniwa”). Claims 2-3 and 13-14 were rejected under 35 U.S.C. §103(a) as unpatentable over Gecht, in view of Maniwa, in view of U.S. patent 6,424,429 to Takahashi et al. (herein “Takahashi”), and in view of U.S. patent 6,535,716 to Reichman et al. (herein “Reichman”). Claims 2-3 and 13-14 were rejected under 35 U.S.C. §103(a) as unpatentable over Gecht, in view of Maniwa, in view of U.S. patent publication 2002/0059176 to Fujisawa, and in view of Reichman. Claims 5 and 16 were rejected under 35 U.S.C. §103(a) as unpatentable over Gecht in view of Maniwa. Claims 6-7 and 17-18 were rejected under 35 U.S.C. §103(a) as unpatentable over Gecht, in view of Maniwa, in view of U.S. patent application publication 2001/0056485 to Barrett, Jr. et al. (herein “Barrett”). Claim 9 was rejected under 35 U.S.C. §103(a) as unpatentable over Gecht, in view of Maniwa, in view of U.S. patent application publication 2002/0194307 to Anderson et al. (herein “Anderson”).

Addressing the above-noted prior art rejections, those rejections are traversed by the present response as discussed next.

Each of independent claims 1, 11, 12, 23, and 24 is amended by the present response to clarify features recited therein. Specifically, independent claim 1 now recites:

a storage unit storing a connection schedule of the management system communication unit to make the connection to the management system; and  
an instruction unit that, in accordance with the connection schedule, instructs the management communication unit to start a connection operation to make the connection to the management system, wherein after the management system communication makes the connection to the management

system, the management system receives the command from the management system[.]

Independent claim 1 now also clarifies:

the management system communication unit transferring the obtained data to the management system at a time the connection schedule indicates to connect to the management system[.]

The other independent claims 11, 12, 23, and 24 are similarly amended as in independent claim 1 noted above.

The features clarified in the independent claims are noted in the present specification for example at page 46, line 14 et seq.

As discussed in that portion in the specification, and with reference to Figure 16 in the present specification as a non-limiting example, the claims are directed to communications between a management mediating device and a management system 70. A storage unit 104 stores information of a connection schedule 104a indicating at which time a management system communication unit 101 can initiate making a connection to the management 70. That is, when a connection instructing unit 105 detects a scheduled timing as indicated by the connection schedule 104a stored in the storing unit 104, the management system communication unit 101 activates a communication function and makes a connection to the management system 70 via the fire wall and the Internet.<sup>1</sup>

In response to that connection initiated and made by the management system communication unit 101, the management system 70 generates a command that is then sent back to the management system communication unit 101.<sup>2</sup>

The management system communication unit 101 receives the command from the management system 70, and then performs an operation based on the command, for example

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<sup>1</sup> Specification at page 46, line 19 to page 47, line 3.

<sup>2</sup> Specification at page 47, lines 10-15.

obtains data indicating a usage state of the image forming apparatus 131 based on the command.<sup>3</sup>

Further, after the usage data is obtained, that obtained usage data can be sent to the management system 70 at a next time the connection schedule 104a in the storing unit 104 indicates for the management system communication unit 101 to make a connection to the management system 70. That is, in that operation a next connection time is awaited before the obtained data (which was attained based on the command provided from the management system 70) is provided to the management system 70.

Features of the above-noted operations are believed to be clarified in the claims and are believed to clearly distinguish over the applied art.

First, applicants respectfully submit none of the applied art discloses or suggests the features now clarified in the claims that based on a scheduled timing within a management mediating device, a management system communication unit within the management mediating device makes a connection to an external management system outside of a fire wall.

Again in the example noted above, and with respect to Figure 16 in the present specification, the management system communication unit 101 initiates a connection to the management system 70 based on the connection instructing unit 105 recognizing that a predetermined time stored in a connection schedule 104a has been reached. Applicants submit such features are neither taught nor suggested by the applied art.

With respect to the previously recited claim language directed to a storage unit storing a connection schedule and making a connection based on the stored connection schedule, the

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<sup>3</sup> Specification at page 47, line 16 to page 47, line 15.

outstanding rejections cited Gecht at column 5, lines 22-25, column 5, lines 58-60, column 12, lines 56-59, column 3, lines 30-32, and column 5, lines 18-21.<sup>4</sup>

In reply to those grounds for rejection, applicants submit the cited disclosures in Gecht are not at all related to the claimed features.

At column 5, lines 22-25 Gecht discloses a specific time of printing a print job may be designated. The claims are not directed to any such features, but instead are directed to setting a schedule for when a management mediating device can make a connection to an external management system that is outside of a fire wall. The printing schedule in Gecht is unrelated to such features.

At column 5, lines 58-60 again Gecht is directed to a print job, and not to anything related to the claimed features.

At column 12, lines 57-59 Gecht references Figure 6 and a printer polling device 101 that may periodically poll a spooling server 50. However, those features are also unrelated to the claimed features. As clarified in the claims, a connection schedule stores a time at which a management system communication unit starts a connection operation to make a connection to an external management system, and in reply to that connection the management system sends a command back to the management system communication unit, which is then executed. No operation in Gecht with respect to Figure 6 teaches or suggests such features, but instead is merely directed to a polling, and not to returning a command based on initiating a connection.

Further, at column 3, lines 30-32 and column 5, lines 18-21 Gecht is again directed to polling a spooling server to identify a print job, which is again unrelated to the claimed features.

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<sup>4</sup> Office Action of November 15, 2007, the paragraphs bridging pages 4 and 5.

Applicants also note that as further clarified in the claims the data obtained based on the command provided from the external management system is only sent back to the management system again *based on the connection schedule*. That is, according to a further feature in the claims, a command from the management system may be received, which for example would indicate to detect a usage state of an image forming apparatus in a local area. The processor executes that command and generates such usage data. In the claims as written, that usage data is only returned back to the management system based on the connection schedule that allows a connection to the management system. That is, as a non-limiting example, in the claimed invention if the command was received from the management system and usage data was then determined, the management mediating deviating device would await for a next connection time to arise as indicated in the connection schedule prior to sending that usage data back to the management system. Such features are now clarified in the claims, and Gecht does not disclose or suggest any similar features. That is, Gecht does not disclose or suggest that any obtained data in response to a command from the management system is only returned back to the management system based on a timing within a connection schedule. None of the other applied art discloses or suggests such features.

Thereby, such further features recited in the above-noted claims distinguish over the applied art.

Moreover, applicants respectfully submit none of the further cited art cures any of the the above-discussed deficiencies in Gecht.

In view of the presently submitted claim amendments and foregoing comments, Applicants respectfully submit claims 1-9, 11, 20, 23, and 24 as currently written distinguish over the applied art.

The present response also adds new independent claim 25 for examination, which is believed to also distinguish over the applied art. New independent claim 25 is directed to a management mediating device that also includes a “schedule changing unit”. The schedule changing unit can

...add[], to the connection schedule of the storing unit, a connection schedule attached to a schedule adding command when the received command is a schedule adding command, and

when the received command is an all schedule changing command, the schedule changing unit downloads a new connection schedule stored at an Internet address attached to the all schedule changing command, by the communication unit, and replaces the connection schedule of the storing unit by the downloaded new connection schedule.

The features recited in new independent claim 25 incorporate features from each of claims 1, 4, 5, and 7, and see also the present specification at Figure 5, and the disclosures at page 4, line 16 to page 8, line 10 and page 30, line 22 to page 32, line 5.

According to features in new claim 25, for a schedule adding command, a schedule attached to the adding command can be provided. Further, for an all schedule changing command, a download can be carried out from a predetermined address. Thereby, the specific processing to be carried out is changed based on a given command to change the schedule.

The structure recited in new claim 25 provides benefits resulting since an external command cannot be received at a management mediating device inside a firewall. Thereby, a command that can be received is only a command to transmit in response to a connection made from inside the firewall. With such a situation, a command for merely adding a schedule can be transmitted in response to a connection made from inside the firewall since the required data size for adding to a schedule is not that large. However, for an all schedule

changing command, the required data size may be so large that the management mediating device would need to newly download the data from a different given address.

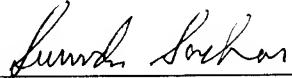
The structure recited in claim 25 addresses such a situation by allowing a command that merely adds to a schedule to be added to a schedule adding command, whereas an all schedule changing command would include an address from which the new schedules could be downloaded.

Such features as recited in new independent claim 25 are believed to even further distinguish over the applied art, and thus new independent claim 25 is also believed to be allowable over the applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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